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| APPLICATION NO.  | FILING DATE          | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|----------------------|----------------------|---------------------|------------------|
| 10/622,079   | 07/16/2003           | Kenneth L. Levy      | P0856               | 1849             |
| 23735 7590 02/12/2007<br>DIGIMARC CORPORATION<br>9405 SW GEMINI DRIVE<br>BEAVERTON, OR 97008 |                      |                      | EXAMINER            |                  |
|  |                      |                      | LOVING, JARIC E     |                  |
|  |                      |                      | ART UNIT            | PAPER NUMBER     |
|  |                      |                      | 2137                | •                |
| SHORTENED STATUTOR   | Y PERIOD OF RESPONSE | MAIL DATE            | DELIVERY MODE       |                  |
| 2 MO   | NTUC                 | 02/12/2007           | PAPER               |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| 4  | Application No.   | Applicant(s)   |  |  |  |  |
|--|---|--|--|--|--|--|
|  | 10/622,079  | LEVY ET AL.  |  |  |  |  |
| Office Action Summary  | Examiner  | Art Unit   |  |  |  |  |
|  | Jaric Loving  | 2137   |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address  |   |  |  |  |  |  |
| Period for Reply   |   |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | TE OF THIS COMMUNICATION (6(a). In no event, however, may a reply be tirr (ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | N. nely filed the mailing date of this communication. D (35 U.S.C. § 133). |  |  |  |  |
| Status   |   | •  |  |  |  |  |
| 1) Responsive to communication(s) filed on 06 De   | ecember 2006.   |  |  |  |  |  |
| 2a) ☐ This action is <b>FINAL</b> . 2b) ☑ This   | •   |  |  |  |  |  |
| · · · · · · · · · · · · · · · · · · ·  | 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is  |  |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |   |  |  |  |  |  |
| Disposition of Claims  | •   |  |  |  |  |  |
| 4)⊠ Claim(s) <u>30-39</u> is/are pending in the application.   |   |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |   |  |  |  |  |  |
| 5) Claim(s) is/are allowed.  |   |  |  |  |  |  |
| 6)⊠ Claim(s) <u>30-39</u> is/are rejected.   |   | •  |  |  |  |  |
| 7) Claim(s) is/are objected to.  |   |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.  |   |  |  |  |  |  |
| Application Papers   |   |  |  |  |  |  |
| 9) The specification is objected to by the Examiner.   |   |  |  |  |  |  |
| 10)⊠ The drawing(s) filed on <u>16 July 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.  |   |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |  |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:   |   |  |  |  |  |  |
| 1. ☐ Certified copies of the priority documents have been received.  |   |  |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |   |  |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage  |   |  |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  |   |  |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |   |  |  |  |  |  |
|  |   |  |  |  |  |  |
| Attachment(s)  |   |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  | 4) Interview Summary  |  |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)   | Paper No(s)/Mail Da<br>5) Notice of Informal P  |  |  |  |  |  |
| Paper No(s)/Mail Date <u>12/6/06</u> . 6) Other:   |   |  |  |  |  |  |

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#### **DETAILED ACTION**

### Election/Restrictions

1. Applicant's election without traverse of claims 30-35 in the reply filed on December 6, 2006 is acknowledged. Claims 36-39 are new.

## Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 3. Claims 30, 36-39 rejected under 35 U.S.C. 102(e) as being anticipated by Morten et al., US 2004/0078575.

In claim 30, Morten discloses a method of monitoring a content item which is to be broadcast through a broadcasting network, the content item to be identified by a fingerprint of the content derived from the content itself, said method comprising:

maintaining a limited list of content items, the list consisting of those content items that are to be broadcast by the broadcasting network during a predetermined time period, the limited list of content items being respectively associated with one or more fingerprints derived from the content items themselves (paragraphs [0009], [0025], [0030], [0043], [0059], [0069]);

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deriving a fingerprint from a content item monitored from the broadcast network (paragraphs [0009], [0043], [0059], [0069]); and

interrogating the limited list of content items with the fingerprint to identify the monitored content item (paragraphs [0059], [0070]).

In claim 36, Morten discloses a method of monitoring a content item which is to be transmitted through a network, the content item to be identified by a fingerprint of the content derived from the content itself, said method comprising:

maintaining a list of content items, the list consisting of those content items that are to be transmitted through the network during a predetermined time period, the list of content items being respectively associated with one or more fingerprints derived from the content items themselves (paragraphs [0009], [0025], [0030], [0043], [0059], [0069]);

deriving a fingerprint from a content item monitored from the network (paragraphs [0009], [0043], [0059], [0069]); and

interrogating the list of content items with a derived fingerprint to identify the monitored content item (paragraphs [0059], [0070]).

In claim 37, Morten discloses a computer readable medium comprising instructions to perform the method of claim 36 (paragraph [0093]).

In claim 38, Morten discloses a method comprising:

receiving a list of content items, the list consisting of those content items that are to be transmitted through the network during a predetermined time period, the list of content items being respectively associated with one or more fingerprints derived from the content items themselves (paragraphs [0009], [0025], [0030], [0043], [0059], [0069]);

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storing the list of content items in a table or data structure (paragraphs [0025], [0030]);

receiving a content item, the content item comprising audio or video (paragraphs [0025], [0030]);

deriving a fingerprint from the content item itself (paragraphs [0009], [0043], [0059], [0069]);

interrogating the list of content items with the derived fingerprint to identify the content item (paragraphs [0059], [0070]);

communicating a signal representing at least the identified content item to a remote device (paragraphs [0029]-[0031], [0034]-[0036]).

In claim 39, Morten discloses a computer readable medium comprising instructions to perform the method of claim 38 (paragraph [0093]).

# Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chainer et al., US 6,397,334 and further in view of Lucas et al., US 6,546,113.

In claim 31, Chainer discloses a method of authenticating video, said method comprising:

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determining a time stamp associated with the video (col. 2, lines 58-67; col. 7, lines 6-8 and lines 44-52); and

providing a digital signature of the video, wherein the digital signature comprises data corresponding to at least a portion of the first frame and data corresponding to at least a portion of the second frame, said digital signature further comprising data corresponding to the time stamp (col. 1, lines 39-42; col. 4, lines 53-57).

Chainer fails to disclose video comprising a first frame and second frame. Lucas discloses video comprising a first frame and second frame (col. 5, lines 15-39).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Chainer's method of authenticating image data with Lucas method of watermarking video utilizing two frames to make alterations easier. It is for this reason that one of ordinary skill in the art would have been motivated to provide Chainer's method of authenticating image data with two frames because it allows hiding of information in a video signal and helps prevent undesired modification of the video (Lucas, col. 1, lines 32-33; col. 2, lines 2-4).

In claim 32, Chainer, as modified, discloses the method of claim 31, further comprising providing geo-location information associated with the video, wherein the digital signature further comprises data corresponding to the geo-location information (Chainer, col. 1, lines 39-42; col. 2, lines 58-61; col. 4, lines 33-37).

In claim 33, Chainer, as modified, discloses the method of claim 31, wherein the first frame and the second frame are adjacent frames (Lucas, col. 5, lines 29-31).

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In claim 34, Chainer, as modified, discloses the method of claim 31, wherein the digital signature is carried via a reversible digital watermark (Chainer, col. 4, lines 61-63 – fragile watermarks allow user to recognize image is authentic and not altered).

In claim 35, Chainer, as modified, discloses the method of claim 31, wherein the digital signature is carried via a file header (Chainer, col. 1, lines 39-42).

### Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Huomo, US 7,096,030; Schumann et al., US 7,162,642; Kobayashi et al., US 6,490,681; Moskowitz, US 2007/0028113; Peinado, US 2005/0216743; Margolus et al., US 2004/0143745; Walker et al., US 2002/0120850; Tsuria, US 2005/0149735; Moskowitz et al., US 2006/0101269.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaric Loving whose telephone number is (571) 272-1686. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JL

EAMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER